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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,967	07/21/2003	Ioana M. RizoIU	BI9001DIV2CON	6283

7590 04/07/2006  
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EXAMINER

SHAY, DAVID M

ART UNIT	PAPER NUMBER
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3735

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/624,967

Applicant(s)

RIZOIU ET AL.

Examiner

david shay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on December 14, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 59-61 and 67-94 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 59-61 and 67-94 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on December 14, \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

As only one terminal disclaimer fee was filed, only one terminal disclaimer has been approved

The newly filed drawings have not been entered and are disapproved – they contain new matter and the Figure numbers do not match those of the sheet they intend to replace.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “user control accepting a user input which specifies cutting efficiency”; the “outputting atomized fluid particles from a plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers is different from an angle of incidence from a second one of the plurality of atomizers”; “the fiber guide tube is disposed between the first atomizer and the second atomizer”; “the output axes of all point from the respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “the output axes a first one of the plurality of atomizers is not parallel to an output axis of a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “wherein the plurality of atomizers is two atomizers”; “the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”;

and “the output axes intersect in a general vicinity of the path near or in the interaction zone” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The amendment filed February 7, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: “outputting atomized fluid particles from a plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers is different from an angle of incidence from a second one of the plurality of atomizers”; “the fiber guide tube is disposed

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between the first atomizer and the second atomizer”; “the output axes of all point from the respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “the output axes a first one of the plurality of atomizers is not parallel to an output axis of a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “wherein the plurality of atomizers is two atomizers”; “the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”; and “the output axes intersect in a general vicinity of the path near or in the interaction zone”.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claims 68-94 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed disclosure is silent on “outputting atomized fluid particles from a plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers”; “an angle of incidence from a first one of the plurality of atomizers is different from an angle of incidence from a second one of the plurality of atomizers”; “the fiber guide tube is disposed between the first atomizer and the second atomizer”; “the output axes of all point from the

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respective atomizers to a general vicinity of the interaction zone”; “the output axes intersect a longitudinal axis of the fiber guide within the interaction zone”; “wherein atomized fluid particles from a first one of the plurality of atomizers combine with atomized fluid particles from a second one of the plurality of atomizers”; “the output axes a first one of the plurality of atomizers is not parallel to an output axis of a second one of the plurality of atomizers”; “wherein atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone”; “a dial for controlling the repetition rate of the electromagnetic energy”; “a dial for controlling the average power of the electromagnetic energy”; “wherein the plurality of atomizers is two atomizers”; “the output axes intersect a longitudinal axis of the fiber guide near or in the interaction zone”; and “the output axes intersect in a general vicinity of the path near or in the interaction zone”.

Claims 59-61, 67 and 68 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rizoiu et al (SPIE 1994 “Morphological...”).

Claims 59-61, 67 and 68 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Rizoiu et al (SPIE 1994 “New Laser....”).

Claims 59-61, 67 and 68 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rizoiu et al (DENT 1994).

Claims 59-61, 67 and 68 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rizoiu et al (SPIE 1993).

Claims 59-61, 67 and 68-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizoiu et al (SPIE 1994 “Morphological...”) in combination with Rizoiu et al (‘256). Rizoiu et al (SPIE 1994 “Morphological...”) teaches the application of a water and air spray with

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infra red laser energy. Rizioiu et al ('256) teach using multiple atomizers which are directed non-parallel to the laser axis and whose axes converge near or at the interaction zone. It would have been obvious to the artisan or ordinary skill to employ the multiple atomizer method of Rizioiu et al ('256) in the method of Rizioiu et al (SPIE 1994 "Morphological...") since Rizioiu et al (SPIE 1994 "Morphological...") provide few details of the atomizer, or to use the laser beam/water spray interaction of Rizioiu et al (SPIE 1994 "Morphological...") in the method of Rizioiu et al ('256), thus producing a method such as claimed.

Claims 59-61, 67 and 68-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizioiu et al (SPIE 1994 "New Laser....") in combination with Rizioiu et al ('256). Rizioiu et al (SPIE 1994 "New Laser....") teaches the application of a water and air spray with infra red laser energy. Rizioiu et al ('256) teach using multiple atomizers which are directed non-parallel to the laser axis and whose axes converge near or at the interaction zone. It would have been obvious to the artisan or ordinary skill to employ the multiple atomizer method of Rizioiu et al ('256) in the method of Rizioiu et al (SPIE 1994 "New Laser....") since Rizioiu et al (SPIE 1994 "New Laser....") provide few details of the atomizer, or to use the laser beam/water spray interaction of Rizioiu et al (SPIE 1994 "New Laser....") in the method of Rizioiu et al ('256), thus producing a method such as claimed.

Claims 59-61, 67 and 68-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizioiu et al (DENT 1994) in combination with Rizioiu et al ('256). Rizioiu et al (DENT 1994) teaches the application of a water and air spray with infra red laser energy. Rizioiu et al ('256) teach using multiple atomizers which are directed non-parallel to the laser axis and whose axes converge near or at the interaction zone. It would have been obvious to the artisan or

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ordinary skill to employ the multiple atomizer method of Rizioiu et al ('256) in the method of Rizioiu et al (DENT 1994) since Rizioiu et al (DENT 1994) provide few details of the atomizer, or to use the laser beam/water spray interaction of Rizioiu et al (DENT 1994) in the method of Rizioiu et al ('256), thus producing a method such as claimed.

Claims 59-61, 67 and 68-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizioiu et al (SPIE 1993) in combination with Rizioiu et al ('256). Rizioiu et al (SPIE 1993) teaches the application of a water and air spray with infra red laser energy. Rizioiu et al ('256) teach using multiple atomizers which are directed non-parallel to the laser axis and whose axes converge near or at the interaction zone. It would have been obvious to the artisan or ordinary skill to employ the multiple atomizer method of Rizioiu et al ('256) in the method of Rizioiu et al (SPIE 1993) since Rizioiu et al (SPIE 1993) provide few details of the atomizer, or to use the laser beam/water spray interaction of Rizioiu et al (SPIE 1993) in the method of Rizioiu et al ('256), thus producing a method such as claimed.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).



Claims 59-61, 67 and 68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 and 19-53 of U.S. Patent No. 6,567,582. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67 and 68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15-16 of U.S. Patent No. 6,561,803. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the

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specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67 and 68-94 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-34 of U.S. Patent No. 6,544,256. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67 and 68-68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-34 and 36-40 of U.S. Patent No. 6,350,123. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In*

re Goodman cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67 and 68-94 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-68 of U.S. Patent No. 6,231,567. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in In re Goodman cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67 and 68-68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 5,968,037. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant

application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67 and 68-68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-38 of U.S. Patent No. 5,785,521. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67, and 68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 5,741,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application.

Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67, and 68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 30-80, 84, 85, 87-96, 100-104, and 107-111 of U.S. Patent No. 6,821,272. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Claims 59-61, 67, and 68 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent No.

6,669,685. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application. Accordingly, instant application claims are not patentably distinct from the patent application claims. Here, the patent application claims require elements A, B, C, and D while instant application claims only requires elements A, B, and C. Thus it is apparent that the more specific patent application claims encompass the instant application claims. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer.

Applicant's arguments filed December 14, 2005 have been fully considered but they are not persuasive. The arguments are not persuasive for the reasons set forth above.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to david shay whose telephone number is (571) 272-4773. The examiner can normally be reached on Tuesday through Friday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco, can be reached on Monday through Friday. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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